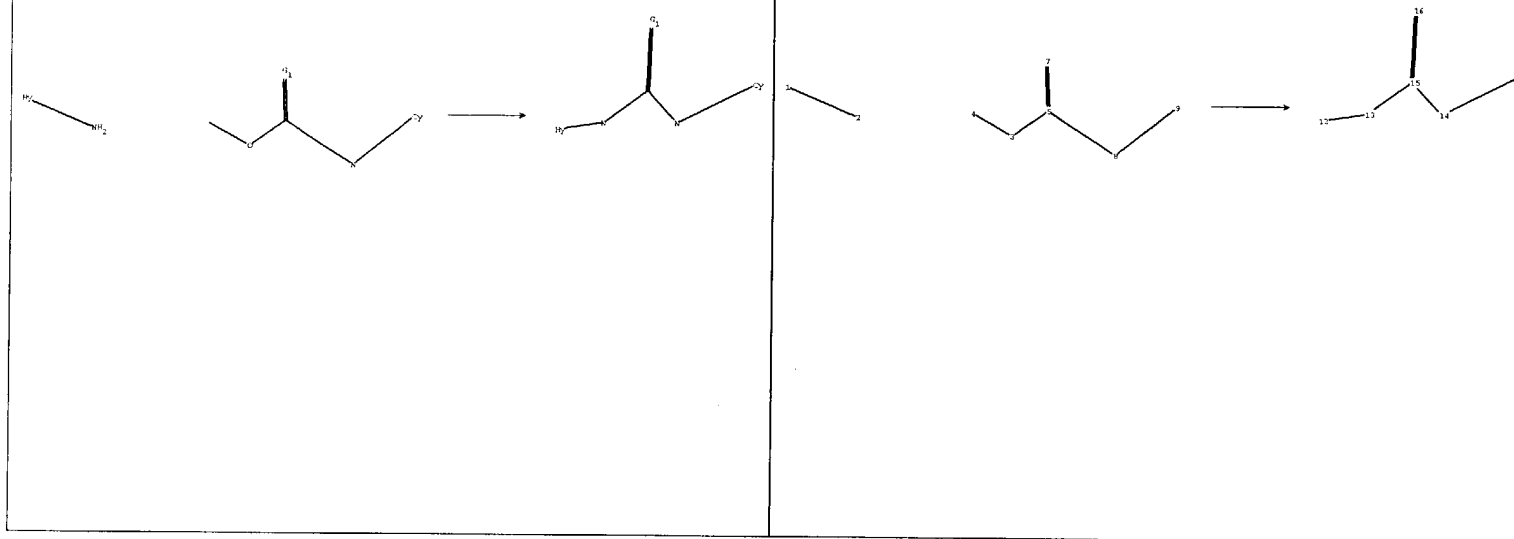


c:\sinweb\Queries\4.str



chain nodes :

1 2 3 5 7 8 9 12 13 14 15 16 18  
ring/chain nodes :  
4

chain bonds :

1-2 3-4 3-5 5-7 5-8 8-9 12-13 13-15 14-15 14-18 15-16

exact/norm bonds :

1-2 3-4 3-5 5-7 5-8 8-9 12-13 13-15 14-15 14-18 15-16

G1:0,S

Match level :

1:Atom 2:CLASS 3:CLASS 4:CLASS 5:CLASS 7:CLASS 8:CLASS 9:Atom 12:Atom 13:CLASS  
14:CLASS 15:CLASS 16:CLASS 18:Atom

fragments assigned reactant role:

containing 1

containing 3

fragments assigned product role:

containing 12

INTERNATIONAL \* \* \* \* \*

SESSION RESUMED IN FILE 'HOME' AT 18:45:32 ON 20 JUN 2004

FILE 'HOME' ENTERED AT 18:45:32 ON 20 JUN 2004

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 18:45:39 ON 20 JUN 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 JUN 2004 HIGHEST RN 695815-39-5

DICTIONARY FILE UPDATES: 18 JUN 2004 HIGHEST RN 695815-39-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

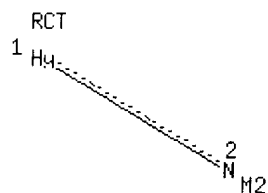
L1 STRUCTURE UPLOADED

=> d 11

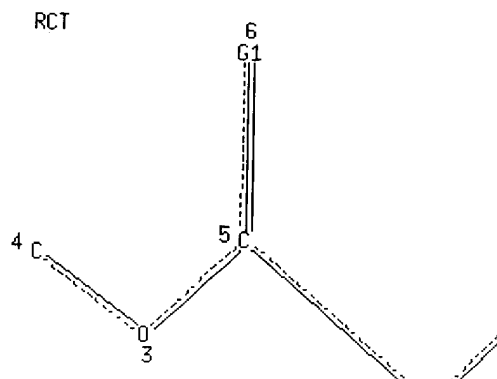
L1 HAS NO ANSWERS

L1 STR

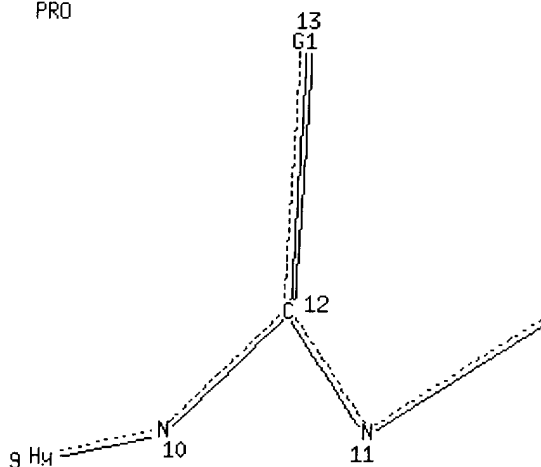
0 15 S 16



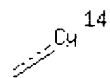
Page 1-A



PRO



Page 1-B



Page 1-C



Page 2-A

VAR G1=15/16

NODE ATTRIBUTES:

HCOUNT	IS M2	AT	2
NSPEC	IS C	AT	1
NSPEC	IS C	AT	2
NSPEC	IS C	AT	3

```

NSPEC   IS RC      AT    4
NSPEC   IS C       AT    5
NSPEC   IS C       AT    6
NSPEC   IS C       AT    7
NSPEC   IS C       AT    8
NSPEC   IS C       AT    9
NSPEC   IS C       AT   10
NSPEC   IS C       AT   11
NSPEC   IS C       AT   12
NSPEC   IS C       AT   13
NSPEC   IS C       AT   14
DEFAULT MLEVEL IS ATOM
MLEVEL   IS CLASS  AT    2    3    4    5    7  10  11  12  15  16
DEFAULT ECLEVEL IS LIMITED

```

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

=> s 11

MULTIPLE ROLE QUERIES ARE NOT ALLOWED IN A NON-REACTION FILE

=> file casreact

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
2.94	3.15

FILE 'CASREACT' ENTERED AT 18:49:39 ON 20 JUN 2004  
 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT:1840 - 20 Jun 2004 VOL 140 ISS 25

```

*****
*
*   CASREACT now has more than 8 million reactions
*
*****

```

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file and provided by InfoChem and some records are produced using some INPI data from the period prior to 1986.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Crossover limits have been increased. See [HELP RNCROSSOVER](#) for details.

Structure search limits have been raised. See [HELP SLIMIT](#) for the new, higher limits.

=>

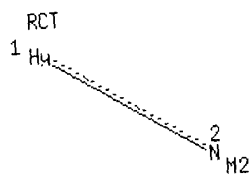
L2 STRUCTURE UPLOADED

=> d 12

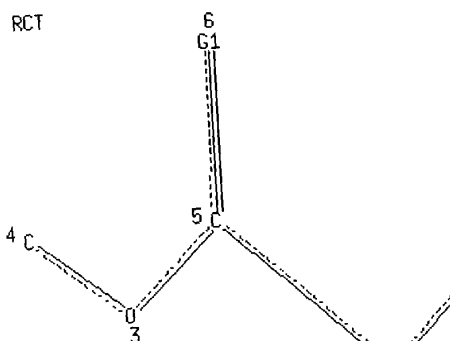
L2 HAS NO ANSWERS

L2 STR

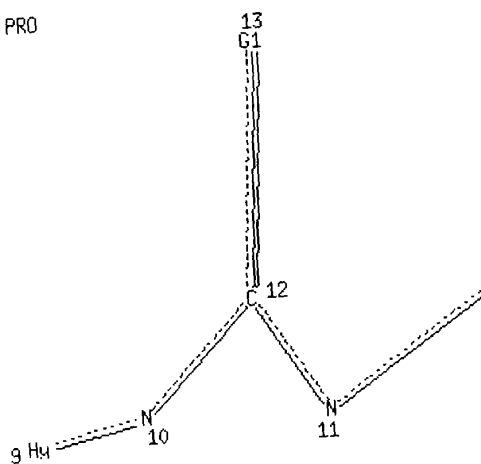
0 15 S 16



Page 1-A



PRO



Page 1-B



Page 1-C



Page 2-A  
VAR G1=15/16

## NODE ATTRIBUTES:

HCOUNT	IS	M2	AT	2
NSPEC	IS	C	AT	1
NSPEC	IS	C	AT	2
NSPEC	IS	C	AT	3
NSPEC	IS	RC	AT	4
NSPEC	IS	C	AT	5
NSPEC	IS	C	AT	6
NSPEC	IS	C	AT	7
NSPEC	IS	C	AT	8
NSPEC	IS	C	AT	9
NSPEC	IS	C	AT	10
NSPEC	IS	C	AT	11
NSPEC	IS	C	AT	12
NSPEC	IS	C	AT	13
NSPEC	IS	C	AT	14

DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 2 3 4 5 7 10 11 12 15 16  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

=> s 12

SAMPLE SEARCH INITIATED 18:49:59 FILE 'CASREACT'  
 SCREENING COMPLETE - 736 REACTIONS TO VERIFY FROM 83 DOCUMENTS

100.0% DONE 736 VERIFIED 1 HIT RXNS 1 DOCS  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*  
 PROJECTED VERIFICATIONS: 13094 TO 16346  
 PROJECTED ANSWERS: 1 TO 79

L3 1 SEA SSS SAM L2 ( 1 REACTIONS)

=> s 12 full

THE ESTIMATED SEARCH COST FOR FILE 'CASREACT' IS 102.30 U.S. DOLLARS  
 DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y  
 FULL SEARCH INITIATED 18:50:04 FILE 'CASREACT'  
 SCREENING COMPLETE - 13384 REACTIONS TO VERIFY FROM 1414 DOCUMENTS

100.0% DONE 13384 VERIFIED 82 HIT RXNS 14 DOCS  
 SEARCH TIME: 00.00.02

L4 14 SEA SSS FUL L2 ( 82 REACTIONS)

=> d l4, ibib abs fhitr, 1-14  
 'FHITSTR' IS NOT A VALID FORMAT FOR FILE 'CASREACT'

The following are valid formats:

ABS ----- GI and AB  
 ALL ----- BIB, AB, IND, RE, Single-step Reactions  
 APPS ----- AI, PRAI

BIB ----- AN, plus Bibliographic Data  
 CAN ----- List of CA abstract numbers without answer numbers  
 CBIB ----- AN, plus Compressed Bibliographic Data  
 DALL ----- ALL, delimited (end of each field identified)  
 IABS ----- ABS, indented with text labels  
 IALL ----- ALL, indented with text labels  
 IBIB ----- BIB, indented with text labels  
 IND ----- Indexing data  
 IPC ----- International Patent Classifications  
 ISTD ----- STD, indented with text labels  
 OBIB ----- AN, plus Bibliographic Data (original)  
 OIBIB ----- OBIB, indented with text labels  
  
 SBIB ----- BIB, no citations  
 SIBIB ----- IBIB, no citations  
  
 MAX ----- Same as ALL  
 PATS ----- PI, SO  
 SCAN ----- TI and FCRD (random display, no answer number. SCAN  
                   must be entered on the same line as DISPLAY, e.g.,  
                   D SCAN.)  
 SSRX ----- Single-Step Reactions (Map, Diagram, and Summary for  
                   all single-step reactions)  
 STD ----- BIB, IPC, and NCL  
  
 CRD ----- Compact Display of All Hit Reactions  
 CRDREF ----- Compact Reaction Display and SO, PY for Reference  
 FHIT ----- Reaction Map, Diagram, and Summary for first  
                   hit reaction  
 FHITCBIB --- FHIT, AN plus CBIB  
 FCRD ----- First hit in Compact Reaction Display (CRD) format  
 FCRDREF ----- First hit in Compact Reaction Display (CRD) format with  
                   CA reference information (SO, PY). (Default)  
 FPATH ----- PATH, plus Reaction Summary for the "long path"  
 FSPATH ----- SPATH, plus Reaction Summary for the "short path"  
 HIT ----- Reaction Map, Reaction Diagram, and Reaction  
                   Summary for all hit reactions and fields containing  
                   hit terms  
 OCC ----- All hit fields and the number of occurrences of the  
                   hit terms in each field. Includes total number of  
                   HIT, PATH, SPATH reactions. Labels reactions that have  
                   incomplete verifications.  
 PATH ----- Reaction Map and Reaction Diagram for the "long  
                   path". Displays all hit reactions, except those  
                   whose steps are totally included within another hit  
                   reaction which is displayed  
 RX ----- Hit Reactions (Map, Diagram, Summary for all hit reactions)  
 RXG ----- Hit Reaction Graphics (Map and Diagram for all hit reactions)  
 RXL ----- Hit Reaction Long (Map, Diagram, Summary for all hit reactions)  
 RXS ----- Hit Reaction Summaries (Map and Summary for all hit reactions)  
 SPATH ----- Reaction Map and Reaction Diagram for the "short  
                   path". Displays all single step reactions which  
                   contain a hit substance. Also displays those  
                   multistep reactions that have a hit substance in both  
                   the first and last steps of the reaction, except for  
                   those hit reactions whose steps are totally included  
                   within another hit reaction which is displayed

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELD

at an arrow prompt (=>). Examples of combinations include: D TI;  
 D BIB RX; D TI, AU, FCRD. The information is displayed in the same order  
 as the specification. All of the formats, except CRD, CRDREF, FHIT, PATH,  
 FPATH, SPATH, FSPATH, FCRD, FCRDREF, HIT, RX, RXG, RXS, SCAN, and OCC, may  
 be used with the DISPLAY command to display the record for a specified  
 Accession Number.

ENTER DISPLAY FORMAT (FCRDREF):end

=> d his

(FILE 'HOME' ENTERED AT 18:44:55 ON 20 JUN 2004)

FILE 'REGISTRY' ENTERED AT 18:45:39 ON 20 JUN 2004  
 L1 STRUCTURE UPLOADED

FILE 'CASREACT' ENTERED AT 18:49:39 ON 20 JUN 2004  
 L2 STRUCTURE UPLOADED

L3 1 S L2

L4 14 S L2 FULL

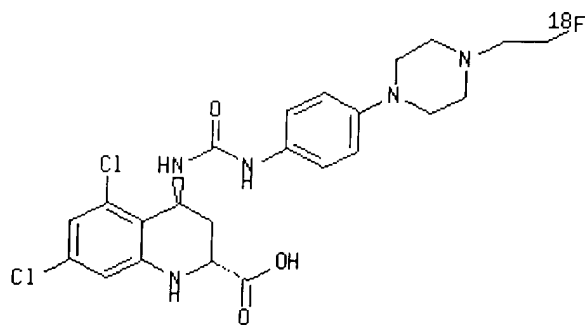
=> d l4, ibib abs crd, 1-14

L4 ANSWER 1 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Citing  
 Text References

ACCESSION NUMBER: 140:16701 CASREACT  
 TITLE: Synthesis and evaluation of 5,7-dichloro-4-(3-{4-[4-(2-[18F]fluoroethyl)piperazin-1-yl]phenyl}ureido)-1,2,3,4-tetrahydroquinoline-2-carboxylic acid as a potential NMDA ligand to study glutamatergic neurotransmission in vivo  
 AUTHOR(S): Piel, Markus; Schirrmacher, Ralf; Hoehnemann, Sabine; Hamkens, Wilhelm; Kohl, Beate; Jansen, Michaela; Schmitt, Ullrich; Lueddens, Hartmut; Dannhardt, Gerd; Roesch, Frank  
 CORPORATE SOURCE: Institute of Nuclear Chemistry, Mainz, D-55128, Germany  
 SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals (2003), 46(7), 645-659  
 CODEN: JLCRD4; ISSN: 0362-4803  
 PUBLISHER: John Wiley & Sons Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI

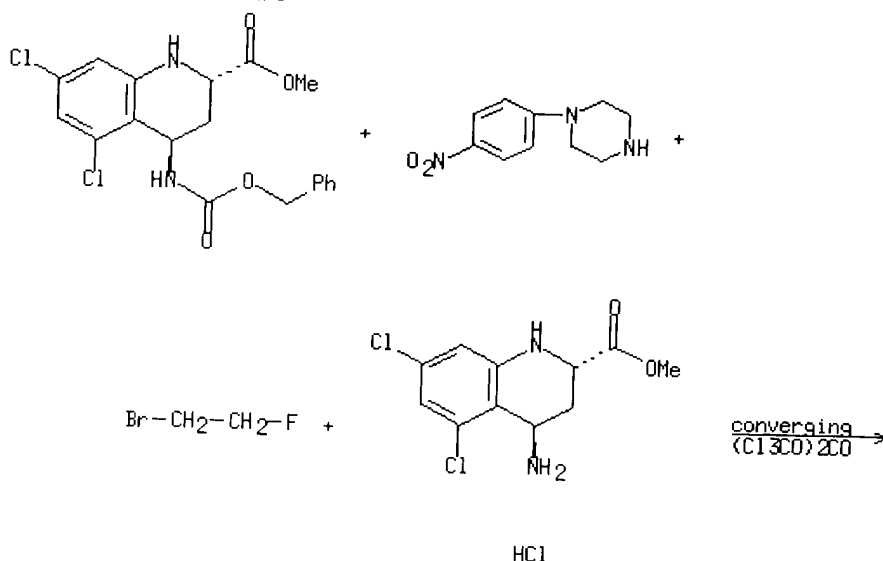




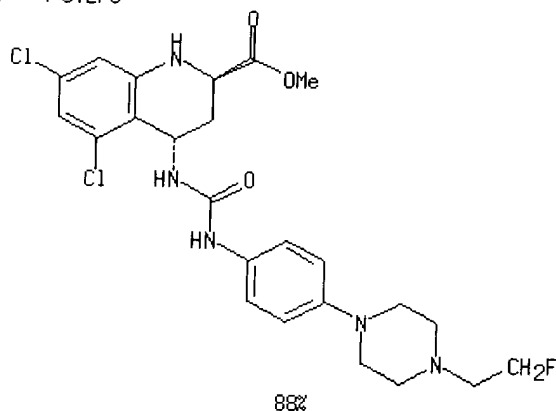
I

AB The neurotransmitter glutamate is thought to be crucially involved in a huge no. of neurol. and psychiatric disorders, such as Morbus Parkinson, Alzheimer's disease and schizophrenia. Aiming at an improved diagnostic tool for PET a new [ $^{18}\text{F}$ ]fluorine labeled NMDA receptor ligand was developed that may potentially allow the in vivo visualization of glutamatergic neurotransmission. The  $^{18}\text{F}$ -analog trans-5,7-dichloro-4-(3-{4-[4-(2-fluoroethyl)piperazin-1-yl]phenyl}ureido)-1,2,3,4-tetrahydroquinoline-2-carboxylic acid was synthesized to det. the binding affinity, lipophilicity and biodistribution of the ligand. This substance exhibits a  $K_i$  of 12 nM for the glycine binding site using [ $^3\text{H}$ ]MDL-105,519 assays on pig cortical membranes. A log D of 1.3 was detd. for this compd. according to the OECD guidelines employing the HPLC method. Radiosynthesis of this ligand was achieved by labeling the precursor trans-5,7-dichloro-4-[3-(4-piperazin-1-ylphenyl)ureido]-1,2,3,4-tetrahydroquinoline-2-carboxylic acid Me ester with 2-[ $^{18}\text{F}$ ]fluoroethyl tosylate and subsequent cleaving of the Me ester moiety, resulting in an overall decay-cor. yield of 35% of the final product (I). The biodistribution kinetics of this compd. were detd. with Sprague Dawley rats ex vivo for brain, liver, kidney, and bone. The ligand showed a max. brain uptake 30 min p.i. of about 0.1% ID/g.

RX(57) OF 114 - 4 STEPS



RX(57) OF 114 - 4 STEPS



NOTE: HCl gas used  
REFERENCE COUNT:

18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Text Citing  
References

ACCESSION NUMBER:

139:301299 CASREACT

TITLE:

Structure-Activity Relationships of the p38 $\alpha$  MAP  
Kinase Inhibitor 1-(5-tert-Butyl-2-p-tolyl-2H-pyrazol-  
3-yl)-3-[4-(2-morpholin-4-yl-ethoxy)naph-  
thalen-1-yl]urea (BIRB 796)

AUTHOR(S):

Regan, John; Capolino, Alison; Cirillo, Pier F.;  
Gilmore, Thomas; Graham, Anne G.; Hickey, Eugene;  
Kroe, Rachel R.; Madwed, Jeffrey; Moriak, Monica;  
Nelson, Richard; Pargellis, Christopher A.; Swinamer,  
Alan; Torcellini, Carol; Tsang, Michele; Moss, Neil  
Department of Medicinal Chemistry, Boehringer  
Ingelheim Pharmaceuticals Research and Development  
Center, Ridgefield, CT, 06877, USA

CORPORATE SOURCE:

SOURCE:

Journal of Medicinal Chemistry (2003), 46(22),  
4676-4686

PUBLISHER:

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE:

American Chemical Society

LANGUAGE:

Journal  
English

AB We report on the structure-activity relationships (SAR) of  
1-(5-tert-butyl-2-p-tolyl-2H-pyrazol-3-yl)-3-[4-(2-morpholin-4-yl-  
ethoxy)naphthalen-1-yl]urea (BIRB 796), an inhibitor of p38 $\alpha$  MAP  
kinase which has advanced into human clin. trials for the treatment of  
autoimmune diseases. Thermal denaturation was used to establish mol.  
binding affinities for this class of p38 $\alpha$  inhibitors. The tert-Bu  
group remains a crit. binding element by occupying a lipophilic domain in  
the kinase which is exposed upon rearrangement of the activation loop. An  
arom. ring attached to N-2 of the pyrazole nucleus provides important  
 $\pi$ -CH<sub>2</sub> interactions with the kinase. The role of groups attached  
through an ethoxy group to the 4-position of the naphthalene and directed  
into the ATP-binding domain is elucidated. Pharmacophores with good  
hydrogen bonding potential, such as morpholine, pyridine, and imidazole,  
shift the melting temp. of p38 $\alpha$  by 16-17° translating into K<sub>d</sub>  
values of 50-100 pM. Finally, we describe several compds. that potently  
inhibit TNF- $\alpha$  prodn. when dosed orally in mice.

RX(36) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(37) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(62) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(63) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(64) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(66) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(76) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(89) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(90) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(91) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(93) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(94) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(95) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(100) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(101) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(102) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(111) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(118) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(119) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(120) OF 120 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Citing  
Text References

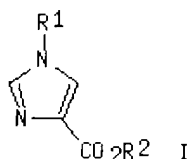
ACCESSION NUMBER: 138:353987 CASREACT  
TITLE: Synthesis of imidazolecarboxylates as intermediates  
INVENTOR(S): Helal, Christopher J.  
PATENT ASSIGNEE(S): Pfizer Inc., USA  
SOURCE: U.S. Pat. Appl. Publ., 31 pp., Cont.-in-part of U.S.  
Ser. No. 919,630.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

US 2003083352 A1 20030501  
 US 2002119963 A1 20020829  
 PRIORITY APPLN. INFO.:

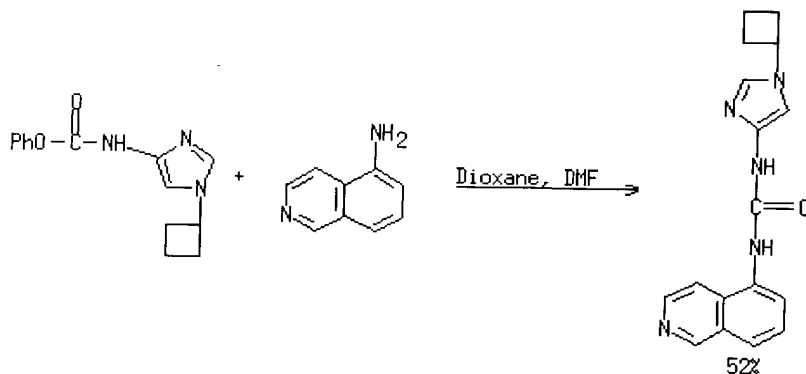
US 2002-205091 20020725  
 US 2001-919630 20010731  
 US 2000-221724P 20000731  
 US 2000-228394P 20000828  
 US 2000-229437P 20000831  
 US 2001-919630 20010731

OTHER SOURCE(S): MARPAT 138:353987  
 GI



AB Imidazolecarboxylates I [R1, R2 = (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, heterocyclic, bicyclic, heterobicyclic, aryl, hetroaryl] were prepd. by cyclizing Me2NCH:C(CN)CO2R2 with R1NH2 in a solvent, such as BuOH, PrOH, Me2CHOH, or EtOH. I are useful as intermediates for synthesizing compds. having pharmacol. activity inhibiting cdk5, cdk2, and GSK-3. Thus, 1,4-dinitroimidazole was treated with cyclobutylamine to give 1-cyclobutyl-4-nitro-1H-imidazole which was hydrogenated and treated with 6-quinolinylacetic acid to give N-(1-cyclobutyl-1H-imidazol-4-yl)-2-quinolin-6-ylacetamide.

RX(7) OF 204



L4 ANSWER 4 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Citing  
 Text References

ACCESSION NUMBER:

TITLE:

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

138:254777 CASREACT

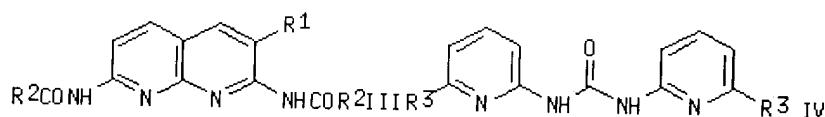
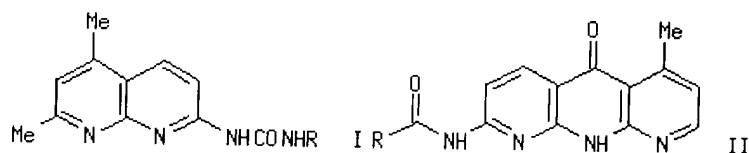
Four hydrogen bonds - DDAA, DADA, DAAD and ADDA  
 hydrogen bond motifs

Luning, Ulrich; Kuhl, Christine; Uphoff, Andreas  
 Olshausenstr. 40, Institut fur Organische Chemie der  
 Universitat Kiel, Olshausenstr. 40, Kiel, 24098,  
 Germany

European Journal of Organic Chemistry (2002), (23),

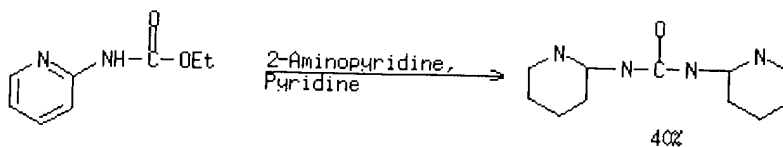
PUBLISHER:  
DOCUMENT TYPE:  
LANGUAGE:  
GI

4063-4070  
CODEN: EJOCFK; ISSN: 1434-193X  
Wiley-VCH Verlag GmbH & Co. KGaA  
Journal  
English



AB Receptor mols. contg. four hydrogen-bond acceptor or donor sites based on aminopyridines, aminonaphthyridines and urea subunits have been synthesized and their assocn. has been investigated. DDAA (I; R= t-Bu, Bu, cyclohexyl) and DADA (II; R=Me, Bu) arrays may form homodimers, while DAAD [III; R1,R2 given:CONH2, t-Bu; CN,t-Bu;CN,Bu;CONH(CH2)CH(NHBoc)CO2Me (IV)] with ADDA (V; R3= H,Me) may form heterodimers. While most parent heterocycles were only slightly sol. in std. org. solvents, substitution was able to enhance the soly. in most cases. The naphthyridine IV, bearing a substituent derived from lysine, possesses potential anchor groups for a covalent connection. Binding studies were carried out in chloroform and monitored by <sup>1</sup>H NMR, and the binding consts. Kass for the heterodimers DAAD·ADDA were compared to the binding of smaller (ADD) or mismatching (DADD, ) counterparts, showing that the matching heterodimer is formed with a selectivity of > 50.

RX(15) OF 29



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 14 CASREACT COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 138:24709 CASREACT  
TITLE: Preparation of pyrazole compds. and bis pyrazole-1H-pyrazole intermediates as antiinflammatory agents  
INVENTOR(S): Kapadia, Suresh R.; Song, Jinhua J.; Yee, Nathan K.  
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., USA  
SOURCE: U.S., 37 pp., Cont.-in-part of U.S. 6,372,773.  
DOCUMENT TYPE: CODEN: USXXAM  
LANGUAGE: Patent  
FAMILY ACC. NUM. COUNT: 3 English  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6492529	B1	20021210	US 2002-67492	20020205
US 6319921	B1	20011120	US 2000-484638	20000118
US 6333325	B1	20011225	US 2001-871559	20010531
US 6329415	B1	20011211	US 2001-891579	20010626
US 2002065285	A1	20020530	US 2001-891820	20010626
US 6506748	B2	20030114		
US 6372773	B1	20020416	US 2001-920899	20010802
PRIORITY APPLN. INFO.:			US 2000-484638	20000118
			US 2001-920899	20010802
			US 1999-116400P	19990119
			US 2001-891579	20010626
OTHER SOURCE(S):		MARPAT 138:24709		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Pyrazole compds., e.g. I, as well as bis pyrazole-1H-pyrazole intermediate compds. e.g. II, were prepd. The compds. are useful in pharmaceutic compns. for treating diseases or pathol. conditions involving inflammation such as chronic inflammatory diseases. All prepd. compds. had IC<sub>50</sub> < 10 mM for inhibition of TNF.alpha. in lipopolysaccharide stimulated THP cells.

RX(74) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(79) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(82) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(93) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(95) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(96) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(97) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(98) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(105) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(134) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(136) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(141) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(143) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(145) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
 RX(147) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(148) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(164) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(166) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(167) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(168) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(169) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(170) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(175) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(176) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(177) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(178) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(179) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(180) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(181) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(190) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(191) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(192) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(194) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(245) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(246) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(247) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(251) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(252) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(253) OF 282 - REACTION DIAGRAM NOT AVAILABLE  
RX(254) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(262) OF 282 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Citing  
Text References

ACCESSION NUMBER:

137:216933 CASREACT

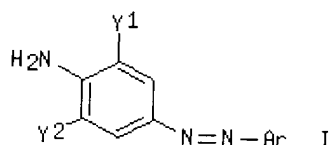
TITLE:

Process for preparing 1,4-phenylenediamine derivatives

as intermediates for ACAT inhibitors

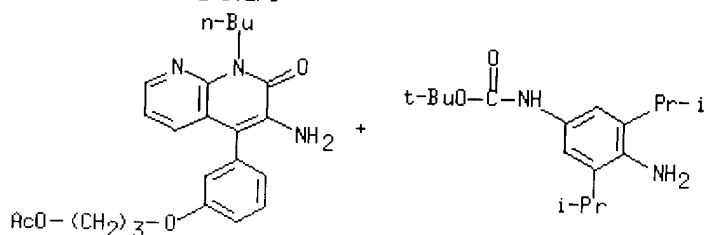
INVENTOR(S): Hasegawa, Hirohiko; Muraoka, Masami; Sasaki, Mikio  
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan; Sumitomo Chemical Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002249475	A2	20020906	JP 2001-297058	20010927
PRIORITY APPLN. INFO.:			JP 2000-391039	20001222
OTHER SOURCE(S):			MARPAT 137:216933	
GI				



AB The title compds. I [Ar = (un)substituted arom. moiety; Y1, Y2 = H, (un)substituted alkyl, etc.], useful as intermediates for cholesterol acyltransferase (ACAT) inhibitors, are prep'd. by reaction of aniline derivs. with benzenediazonium halides. Thus, treatment of aniline with HCl and sodium nitrite in water, followed by reaction with 2,6-diisopropylaniline, gave 2,6-diisopropyl-4-(phenylazo)aniline (II). Reaction of II with 1-butyl-3-(phenoxycarbonylamino)-4-[3-[3-(benzyloxy)propoxy]phenyl]-1,2-dihydro-2-oxo-1,8-naphthyridine, followed by redn. of the product, gave N-[4-[3-(3-hydroxypropoxy)phenyl]-1-butyl-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl]-N'-(2,6-diisopropyl-4-aminophenyl)urea.

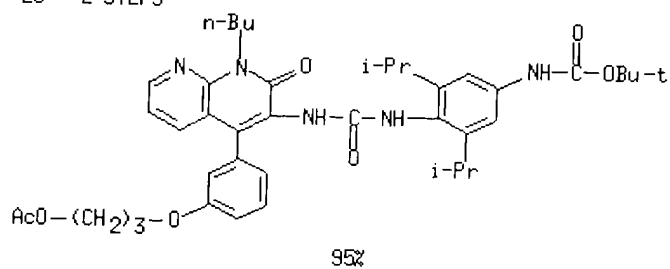
RX(15) OF 28 - 2 STEPS



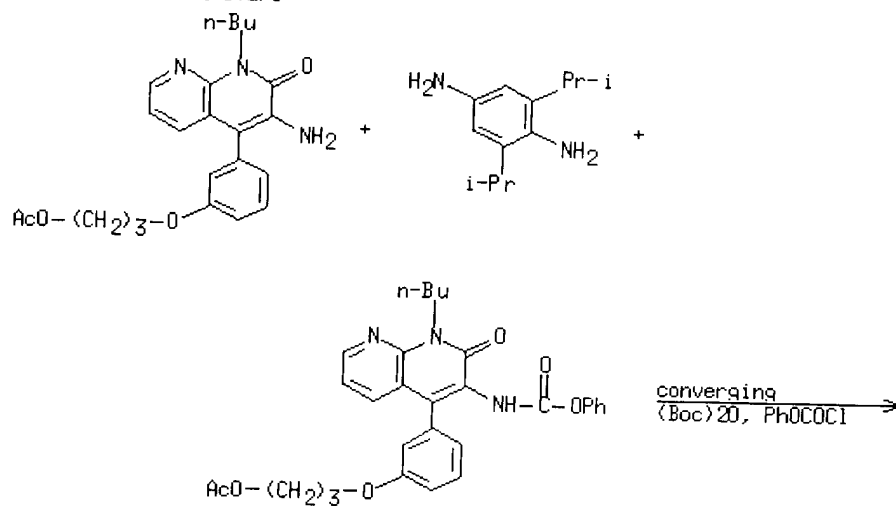
1. PhOCOC1, PhMe, THF  
 2.1. 4-IMAP, DMF  
 2.2. t-BuOMe, NH4Cl, Water



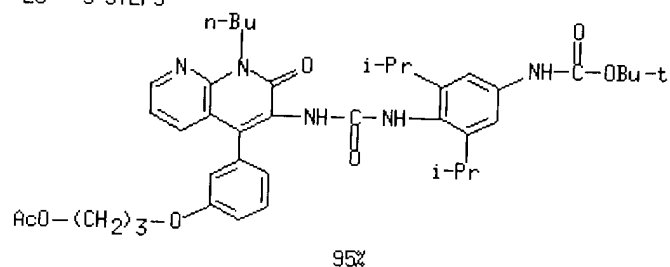
RX(15) OF 28 - 2 STEPS



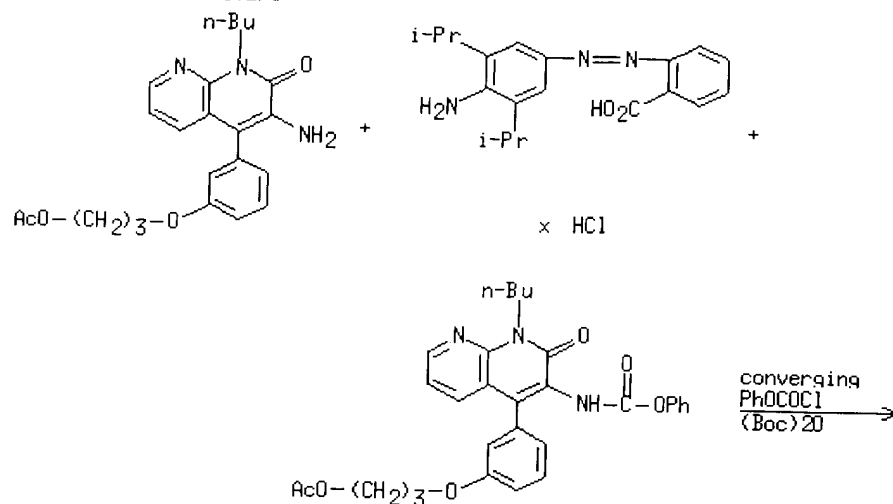
RX(22) OF 28 - 3 STEPS



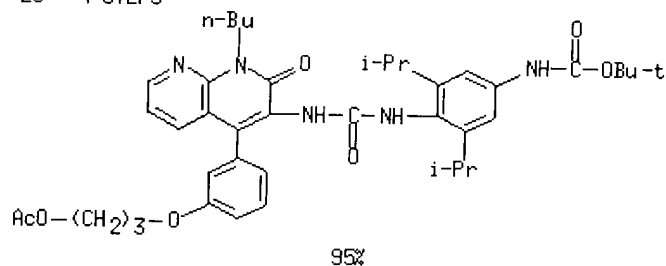
RX(22) OF 28 - 3 STEPS



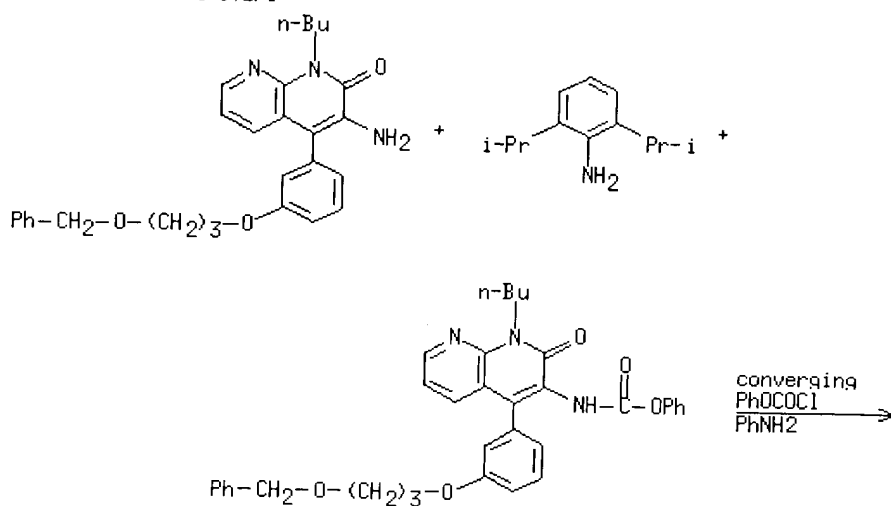
RX(23) OF 28 - 4 STEPS



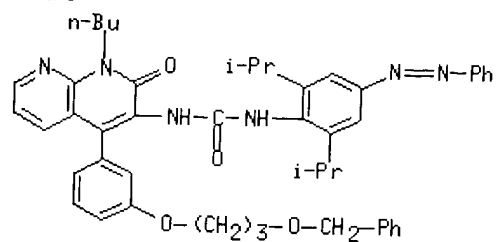
RX(23) OF 28 - 4 STEPS



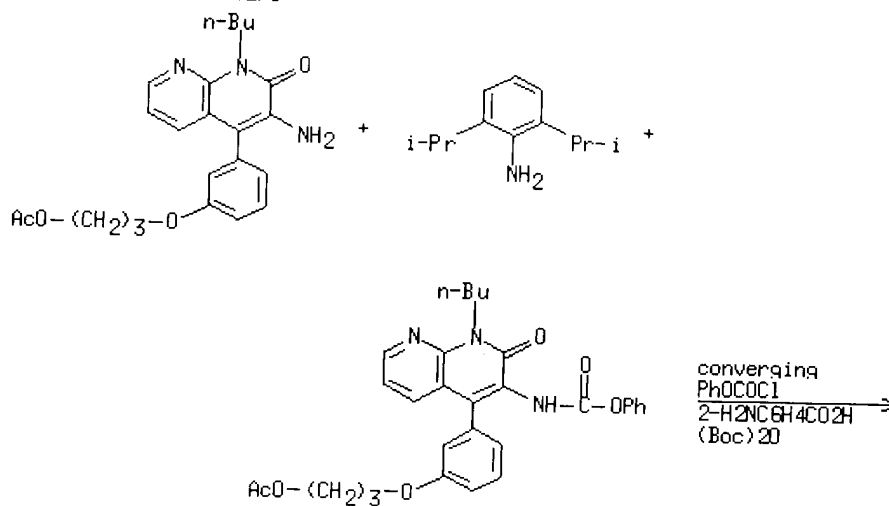
RX(25) OF 28 - 3 STEPS



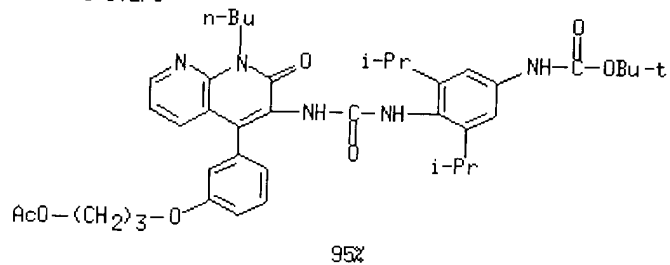
RX(25) OF 28 - 3 STEPS



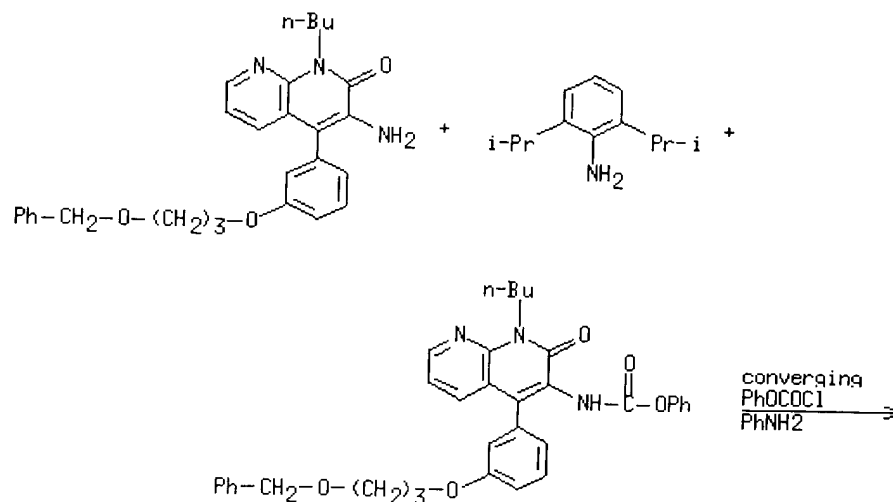
RX(27) OF 28 - 5 STEPS



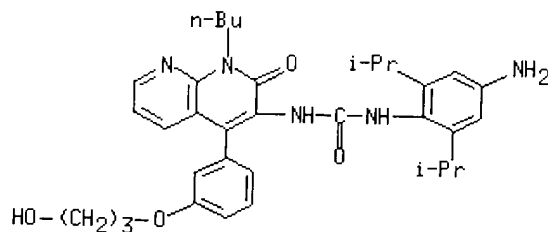
RX(27) OF 28 - 5 STEPS



RX(28) OF 28 - 4 STEPS



RX(28) OF 28 - 4 STEPS



L4 ANSWER 7 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

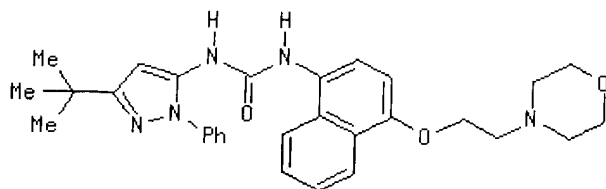
Full Text	Citing References
-----------	-------------------

ACCESSION NUMBER: 137:185488 CASREACT  
 TITLE: Preparation of N-aryl-N'-azolyureas  
 INVENTOR(S): Tan, Zhulin; Song, Jinhua J.  
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

*Gene use*

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002066442	A1	20020829	WO 2002-US2982	20020101
W: CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1362037	A1	20031119	EP 2002-707665	20020101
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2002123631	A1	20020905	US 2002-74895	20020212
PRIORITY APPLN. INFO.:			US 2001-268841P	20010215
			WO 2002-US2982	20020101
OTHER SOURCE(S):		MARPAT 137:185488		

GI



AB Title compds. were prepd. Thus, 4-[2-(4-morpholinyl)ethoxy]-1-naphthaleneamine was N-acylated by ClCO<sub>2</sub>CH<sub>2</sub>CCl<sub>3</sub> and the product amidated by 5-(1,1,-dimethylethyl)-1H-pyrazole-3-amine to give, after N-arylation, title compd. I.

RX(4) OF 9 - REACTION DIAGRAM NOT AVAILABLE

RX(6) OF 9 - REACTION DIAGRAM NOT AVAILABLE

RX(7) OF 9 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT:

7

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Text	Citing References
-----------	-------------------

ACCESSION NUMBER:	137:119059 CASREACT
TITLE:	Pyrazole Urea-Based Inhibitors of p38 MAP Kinase: From Lead Compound to Clinical Candidate
AUTHOR(S):	Regan, John; Breitfelder, Steffen; Cirillo, Pier; Gilmore, Thomas; Graham, Anne G.; Hickey, Eugene; Klaus, Bernhard; Madwed, Jeffrey; Moriak, Monica; Moss, Neil; Pargellis, Chris; Pav, Sue; Proto, Alfred; Swinamer, Alan; Tong, Liang; Torcellini, Carol
CORPORATE SOURCE:	Research and Development Center, Department of Medicinal Chemistry, Boehringer Ingelheim Pharmaceuticals, Ridgefield, CT, 06877, USA
SOURCE:	Journal of Medicinal Chemistry (2002), 45(14), 2994-3008
PUBLISHER:	CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE:	American Chemical Society
LANGUAGE:	Journal
	English

AB We report on a series of N-pyrazole, N'-aryl ureas and their mode of binding to p38 mitogen activated protein kinase. Importantly, a key binding domain that is distinct from the ATP (ATP) binding site is exposed when the conserved activation loop, consisting in part of Asp168-Phe169-Gly170, adopts a conformation permitting lipophilic and hydrogen bonding interactions between this class of inhibitors and the protein. We describe the correlation of the structure-activity relationships and crystallog. structures of these inhibitors with p38. In addn., we incorporated another binding pharmacophore that forms a hydrogen bond at the ATP binding site. This modification affords significant improvements in binding, cellular, and in vivo potencies resulting in the selection of Compd. 45 (BIRB 796) as a clin. candidate for the treatment of inflammatory diseases.

RX(67) OF 99 - REACTION DIAGRAM NOT AVAILABLE

RX(86) OF 99 - REACTION DIAGRAM NOT AVAILABLE

RX(88) OF 99 - REACTION DIAGRAM NOT AVAILABLE

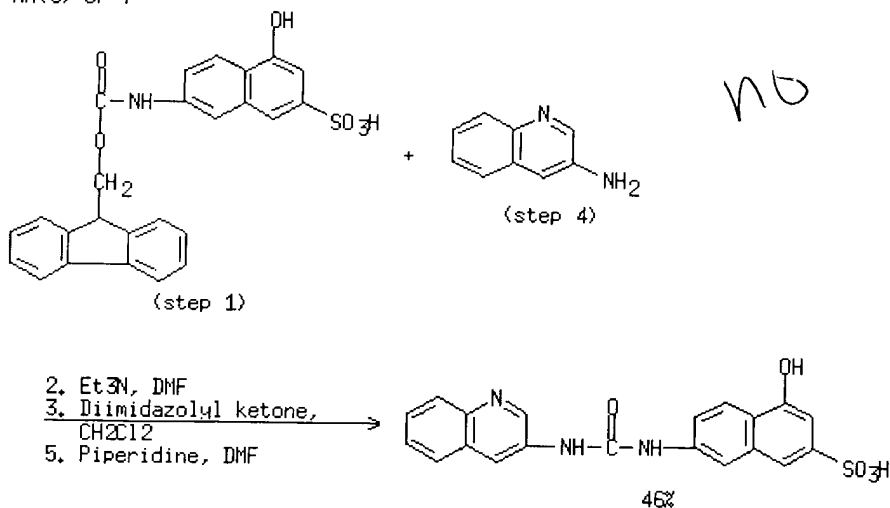
REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Citing  
Text References

ACCESSION NUMBER: 129:27804 CASREACT  
TITLE: Solid support-bound synthesis of polyfunctional unsymmetrical ureas  
AUTHOR(S): Maurer, Karl W.; Kenyon, George L.  
CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of California, San Francisco, CA, 94143-0446, USA  
SOURCE: Bioorganic Chemistry (1997), 25(5/6), 277-281  
CODEN: BOCMBM; ISSN: 0045-2068  
PUBLISHER: Academic Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Solid support-bound chem. has been used to gain access to several polyfunctional ureas which could not be easily produced via traditional soln. phase approaches.

RX(6) OF 7



NOTE: first stage is attachment to carboxypolystyrene resin

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

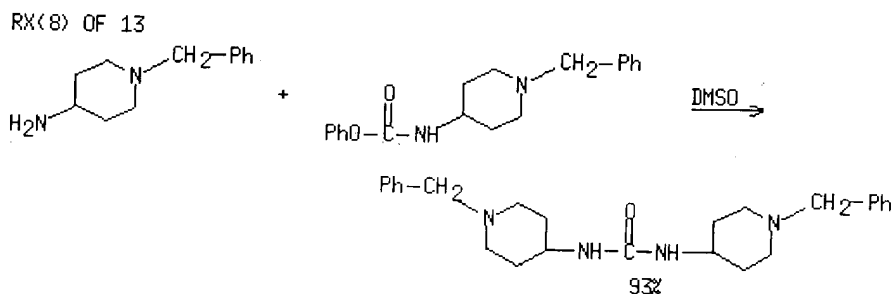
L4 ANSWER 10 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Citing  
Text References

ACCESSION NUMBER: 128:34510 CASREACT  
TITLE: A practical synthesis of ureas from phenyl carbamates  
AUTHOR(S): Thavonekham, Bounkham  
CORPORATE SOURCE: Bio-Mega Research Division, Boehringer Ingelheim Ltd., Laval, QC, H7S 2G5, Can.

SOURCE: Synthesis (1997), (10), 1189-1194  
CODEN: SYNTBF; ISSN: 0039-7881  
PUBLISHER: Thieme  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Using DMSO as solvent, a mild and efficient procedure for the synthesis of unsym. N,N'-disubstituted ureas from Ph carbamates is described. The carbamates are treated with a stoichiometric amt. of amine at ambient temp., generating the ureas in high yield and high purity. The reaction is mild, fast, and easily scaled up.



L4 ANSWER 11 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Text	Citing References
<p>1. The first study was conducted by Smith et al. (2018), who investigated the effects of a new drug on patients with chronic pain.</p> <p>2. In addition, Jones et al. (2019) found that the same drug had significant side effects in a larger population.</p> <p>3. These findings suggest that further research is needed to determine the long-term safety and efficacy of this treatment.</p>	<p>(Smith et al., 2018)</p> <p>(Jones et al., 2019)</p>

ACCESSION NUMBER:	127:262982	CASREACT
TITLE:	A new type of fluorescence labeling of nucleosides, nucleotides and oligonucleotides	
AUTHOR(S):	Sigmund, Harald; Maier, Thomas; Pfeleiderer, Wolfgang	
CORPORATE SOURCE:	Fakultat Chemie, Universitat Konstanz, Konstanz, D-78434, Germany	
SOURCE:	Nucleosides & Nucleotides (1997), 16(5 & 6), 685-696	
PUBLISHER:	CODEN: NUNUD5; ISSN: 0732-8311	
DOCUMENT TYPE:	Dekker	
LANGUAGE:	Journal	
	English	

AB Fluorescein has been coupled to the amino groups of the common nucleosides via a carbamoyl spacer to form a new type of conjugates. The corresponding phosphoramidites have been prepd. with Npe and Npeoc protecting groups for application in oligonucleotide synthesis. Hybridizations have been studied in dependence of the fluorescing label as well as fluorescence quantum yields and fluorescence anisotropy effects.

RX(1) OF 2 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full  
Text

ACCESSION NUMBER: 121:9425 CASREACT  
TITLE: Process for preparing amide derivatives from  
haloaminotriazines and acid halides  
INVENTOR(S): Gupta, Ram B.  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: U.S., 22 pp. Cont.-in-part of U.S. Ser. No. 793,077,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 5

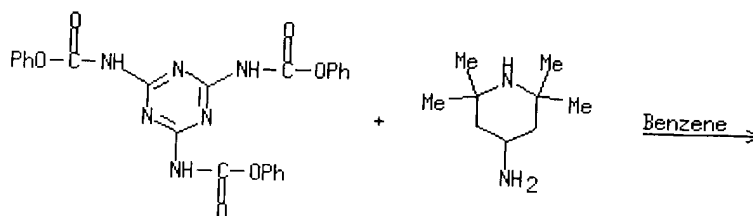
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5288865	A	19940222	US 1992-968871	19921030
CA 2082880	AA	19930516	CA 1992-2082880	19921113
NO 9204394	A	19930518	NO 1992-4394	19921113
AU 9228361	A1	19930520	AU 1992-28361	19921113
AU 655688	B2	19950105		
EP 565774	A2	19931020	EP 1992-119485	19921113
EP 565774	A3	19940817		
EP 565774	B1	20010328		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
EP 930303	A2	19990721	EP 1999-101493	19921113
EP 930303	A3	19990728		
EP 930303	B1	20040204		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 933371	A1	19990804	EP 1999-101466	19921113
EP 933371	B1	20030409		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 933369	A1	19990804	EP 1999-101495	19921113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 933370	A1	19990804	EP 1999-101496	19921113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 200078	E	20010415	AT 1992-119485	19921113
AT 236889	E	20030415	AT 1999-101466	19921113
AT 258925	E	20040215	AT 1999-101493	19921113
BR 9204416	A	19930720	BR 1992-4416	19921116
JP 05239038	A2	19930917	JP 1992-330050	19921116
JP 3435654	B2	20030811		
US 5405959	A	19950411	US 1993-150679	19931110
US 5571915	A	19961105	US 1995-398256	19950303
US 5496944	A	19960305	US 1995-469720	19950606
US 6107369	A	20000822	US 1995-469726	19950606
PRIORITY APPLN. INFO.:				
			US 1991-793077	19911115
			US 1992-968871	19921030
			US 1992-973676	19921109
			EP 1992-119485	19921113
			US 1993-1697	19930107
			US 1993-150679	19931110

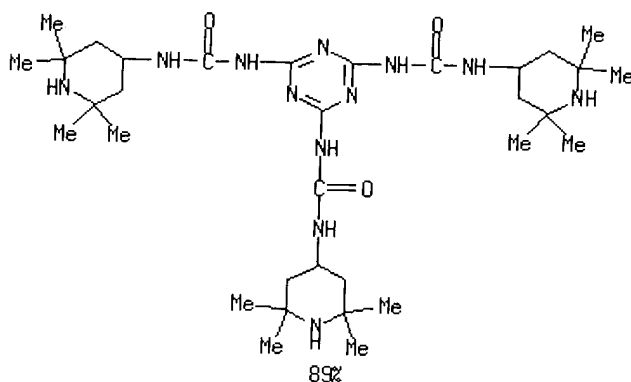
AB This invention provides a process for prepg. amide derivs. of acids by the reaction of haloaminotriazines and acid halides. This invention also provides a process for prepg. isocyanates and isocyanate adducts from amide derivs. derived from haloaminotriazines and acid halides such as oxalyl chloride, phosgene and phosgene analogs. Melamine derived acid amides are prepd. by reaction of trichloro and hexachloromelamines with chloroformates and acid chlorides. The byproduct chlorine may be recycled in this process. Amides, carbamates, sulfoamides, phosphoramides, and related amide derivs. may be prepd. by the novel processes of the invention. Thus, reaction of hexachloromelamine with Me chloroformate in the presence of polydimethylaminopyridine at 70° for 6h gave 80% triazine trismethylcarbamate.



RX(5) OF 7



RX(5) OF 7



L4 ANSWER 13 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Text Citing References

ACCESSION NUMBER:

99:38434 CASREACT

TITLE:

Triazolo[4',3':4,5][1,3,4]thiadiazolo[2,3-b]quinazolin-6-one

AUTHOR(S):

Gakhar, H. K.; Jain, Anju; Gill, J. K.; Gupta, Shashi Bhushan

CORPORATE SOURCE:

Dep. Chem., Panjab Univ., Chandigarh, 160014, India

SOURCE:

Monatshefte fuer Chemie (1983), 114(3), 339-42

DOCUMENT TYPE:

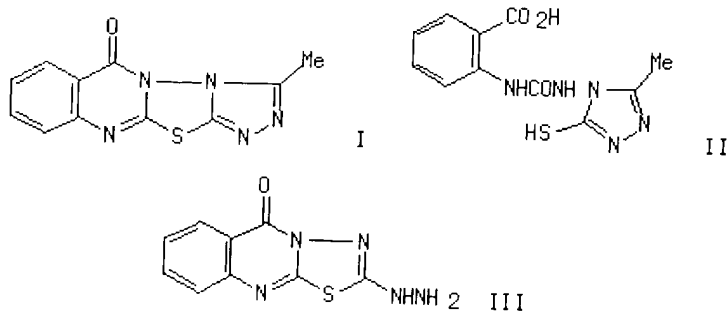
CODEN: MOCMB7; ISSN: 0026-9247

LANGUAGE:

Journal

GI

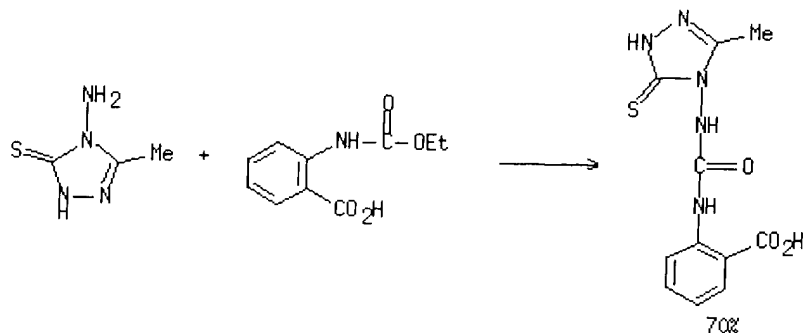
English



AB The triazolothiadiazoloquinazolinone I was synthesized by the condensation of isatoic anhydride with 4-amino-5-mercapto-3-methyl-1,2,4-triazole and followed by cyclization of the intermediate II with POCl<sub>3</sub> and PCl<sub>3</sub>. Alternatively I could also be synthesized by the condensation of

3-amino-2-mercapto-3H-quinazolin-4-one with N-carbethoxyhydrazine in the presence of HCl and final cyclization of the intermediate III with HOAc.

RX(3) OF 11



L4 ANSWER 14 OF 14 CASREACT COPYRIGHT 2004 ACS on STN

Full Text Citing References

ACCESSION NUMBER:

91:56906 CASREACT

TITLE:

Synthesis of some substituted aminophenazones of possible therapeutic interest

AUTHOR(S):

Farghaly, A. M.

CORPORATE SOURCE:

Fac. Pharm., Univ. Alexandria, Alexandria, Egypt

SOURCE:

Pharmazie (1979), 34(2), 70-3

DOCUMENT TYPE:

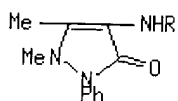
CODEN: PHARAT; ISSN: 0031-7144

LANGUAGE:

Journal

GI

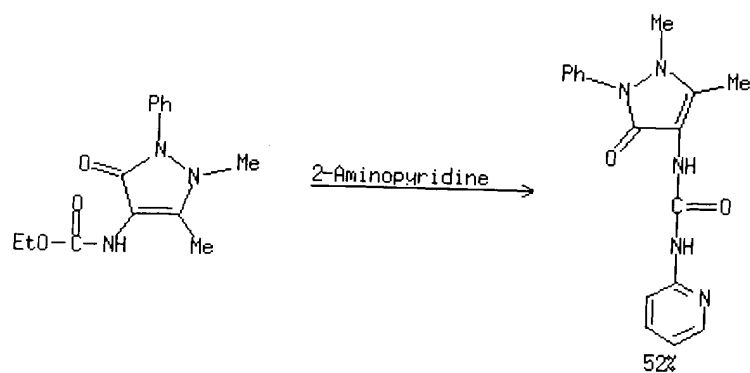
English



I

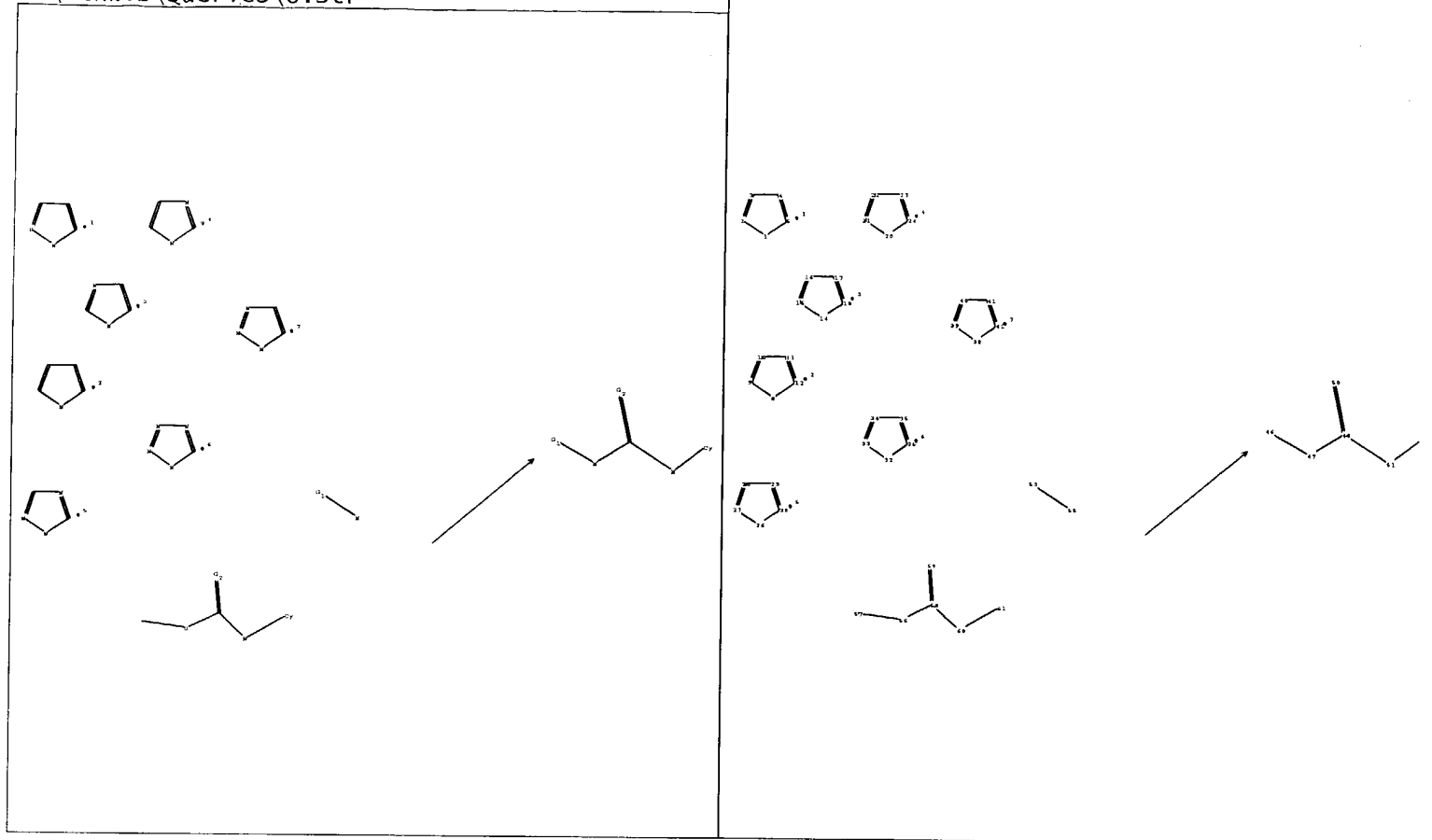
- AB Hydrazones I (R = CH<sub>2</sub>CONHN:CR<sub>1</sub>R<sub>2</sub>; R<sub>1</sub> = H, R<sub>2</sub> = optionally substituted Ph; R<sub>1</sub> = Me, R<sub>2</sub> = Me, Ph) were prepd. from I (R = H) via I (R = CH<sub>2</sub>CO<sub>2</sub>Et) and I (R = CH<sub>2</sub>CONHNH<sub>2</sub>). I (R = CH<sub>2</sub>CONHNHR<sub>3</sub>; R<sub>3</sub> = Bz, SO<sub>2</sub>Ph, SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-4, COCH:CHPh, COCHPhOAc, COCPh<sub>2</sub>OAc) were also prepd. from I (R = CH<sub>2</sub>CONHNH<sub>2</sub>). I (R = COCH<sub>2</sub>R<sub>4</sub>; R<sub>4</sub> = NEt<sub>2</sub>, N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>, piperidino, morpholino, 4-(2-hydroxyethyl)piperazino, 4-ethoxycarbonylpiperazino) were prepd. from I (R = H) via I (R = COCH<sub>2</sub>Cl). I (R = CONHR<sub>5</sub>; R<sub>5</sub> = CMe<sub>3</sub>, cyclohexyl, Ph, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>, CH<sub>2</sub>Ph, 2-naphthyl, 2-pyridyl) were obtained by aminating I (R = CO<sub>2</sub>Et), prepd. by treating I (R = H) with ClCO<sub>2</sub>Et. I [R = CH<sub>2</sub>CONHNHCOCH:CHPh, CH<sub>2</sub>CONHNHCOCPh<sub>2</sub>OAc (II), COCH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>] had analgesic activity comparable to that of phenylbutazone and II also had antiinflammatory activity.

RX(25) OF 46



=&gt;

C:\stnweb\Queries\6.str



```

chain nodes :
  46 47 48 50 51 52 53 55 56 58 59 60 61
ring nodes :
  1 2 3 4 5 8 9 10 11 12 14 15 16 17 18 20 21 22 23 24 26 27 28 29
  30 32 33 34 35 36 38 39 40 41 42
ring/chain nodes :
  57
chain bonds :
  46-47 47-48 48-50 48-51 51-52 53-55 56-57 56-58 58-59 58-60 60-61
ring bonds :
  1-2 1-5 2-3 3-4 4-5 8-9 8-12 9-10 10-11 11-12 14-15 14-18 15-16 16-17 17-18
  20-21 20-24 21-22 22-23 23-24 26-27 26-30 27-28 28-29 29-30 32-33 32-36 33-34
  34-35 35-36 38-39 38-42 39-40 40-41 41-42
exact/norm bonds :
  1-2 1-5 2-3 8-9 8-12 14-15 14-18 15-16 16-17 20-21 20-24 22-23 23-24 26-27
  26-30 27-28 28-29 29-30 32-33 32-36 33-34 34-35 35-36 38-39 38-42 39-40 40-41
  46-47 47-48 48-50 48-51 51-52 53-55 56-57 56-58 58-59 58-60 60-61
exact bonds :
  3-4 4-5 9-10 10-11 11-12 17-18 21-22 41-42
isolated ring systems :
  containing 1 : 8 : 14 : 20 : 26 : 32 : 38 :

```

G1:[\*1],[\*2],[\*3],[\*4],[\*5],[\*6],[\*7]

G2:O,S

Match level :

```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom
14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom
26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom
38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 46:CLASS 47:CLASS 48:CLASS 50:CLASS
51:CLASS 52:Atom 53:CLASS 55:CLASS 56:CLASS 57:CLASS 58:CLASS 59:CLASS 60:CLASS
61:Atom

```

fragments assigned reactant role:

.containing 53

containing 56

- fragments assigned product role:

- containing 46

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
 NEWS 2 "Ask CAS" for self-help around the clock  
 NEWS 3 May 10 PROUSDDR now available on STN  
 NEWS 4 May 19 PROUSDDR: One FREE connect hour, per account, in both May  
 and June 2004  
 NEWS 5 May 12 EXTEND option available in structure searching  
 NEWS 6 May 12 Polymer links for the POLYLINK command completed in REGISTRY  
 NEWS 7 May 17 FRFULL now available on STN  
 NEWS 8 May 27 STN User Update to be held June 7 and June 8 at the SLA 2004  
 Conference  
 NEWS 9 May 27 New UPM (Update Code Maximum) field for more efficient patent  
 SDIs in Cplus  
 NEWS 10 May 27 Cplus super roles and document types searchable in REGISTRY  
 NEWS 11 May 27 Explore APOLLIT with free connect time in June 2004

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT  
 MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
 AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
 NEWS INTER General Internet Information  
 NEWS LOGIN Welcome Banner and News Items  
 NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
 NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
 specific topic.

All use of STN is subject to the provisions of the STN Customer  
 agreement. Please note that this agreement limits use to scientific  
 research. Use for software development or design or implementation  
 of commercial gateways or other similar uses is prohibited and may  
 result in loss of user privileges and other penalties.

\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 19:43:09 ON 20 JUN 2004

=> file casreact  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FILE 'CASREACT' ENTERED AT 19:43:21 ON 20 JUN 2004  
 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is  
 held by the publishers listed in the PUBLISHER (PB) field (available  
 for records published or updated in Chemical Abstracts after December  
 26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT:1840 - 20 Jun 2004 VOL 140 ISS 25

\*\*\*\*\*  
 \*  
 \* CASREACT now has more than 8 million reactions \*  
 \*  
 \*\*\*\*\*

Some records from 1974 to 1991 are derived from the ZIC/VINITI data file and provided by InfoChem and some records are produced using some INPI data from the period prior to 1986.

This file contains CAS Registry Numbers for easy and accurate substance identification.

Crossover limits have been increased. See HELP RNCROSSOVER for details.

Structure search limits have been raised. See HELP SLIMIT for the new, higher limits.

=>

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

=> s l1

SAMPLE SEARCH INITIATED 19:51:21 FILE 'CASREACT'

SCREENING COMPLETE - 2 REACTIONS TO VERIFY FROM 2 DOCUMENTS

100.0% DONE 2 VERIFIED 0 HIT RXNS 0 DOCS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED VERIFICATIONS: 2 TO 124  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1 ( 0 REACTIONS)

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'CASREACT' IS 102.30 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 19:51:27 FILE 'CASREACT'

SCREENING COMPLETE - 301 REACTIONS TO VERIFY FROM 51 DOCUMENTS

100.0% DONE 301 VERIFIED 89 HIT RXNS 3 DOCS  
SEARCH TIME: 00.00.01

L3 3 SEA SSS FUL L1 ( 89 REACTIONS)

=> d l3, ibib abs crd, 1-3

L3 ANSWER 1 OF 3 CASREACT COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 139:301299 CASREACT

TITLE: Structure-Activity Relationships of the p38.alpha. MAP  
Kinase Inhibitor 1-(5-tert-Butyl-2-p-tolyl-2H-pyrazol-  
3-yl)-3-[4-(2-morpholin-4-yl-ethoxy)naph-  
thalen-1-yl]urea (BIRB 796)

AUTHOR(S): Regan, John; Capolino, Alison; Cirillo, Pier F.;  
Gilmore, Thomas; Graham, Anne G.; Hickey, Eugene;  
Kroe, Rachel R.; Madwed, Jeffrey; Moriak, Monica;  
Nelson, Richard; Pargellis, Christopher A.; Swinamer,  
Alan; Torcellini, Carol; Tsang, Michele; Moss, Neil

CORPORATE SOURCE: Department of Medicinal Chemistry, Boehringer

SOURCE: Ingelheim Pharmaceuticals Research and Development  
Center, Ridgefield, CT, 06877, USA  
Journal of Medicinal Chemistry (2003), 46(22),  
4676-4686  
CODEN: JMCMAR; ISSN: 0022-2623  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB We report on the structure-activity relationships (SAR) of 1-(5-tert-butyl-2-p-tolyl-2H-pyrazol-3-yl)-3-[4-(2-morpholin-4-yl-ethoxy)naphthalen-1-yl]urea (BIRB 796), an inhibitor of p38.alpha. MAP kinase which has advanced into human clin. trials for the treatment of autoimmune diseases. Thermal denaturation was used to establish mol. binding affinities for this class of p38.alpha. inhibitors. The tert-Bu group remains a crit. binding element by occupying a lipophilic domain in the kinase which is exposed upon rearrangement of the activation loop. An arom. ring attached to N-2 of the pyrazole nucleus provides important .pi.-CH2 interactions with the kinase. The role of groups attached through an ethoxy group to the 4-position of the naphthalene and directed into the ATP-binding domain is elucidated. Pharmacophores with good hydrogen bonding potential, such as morpholine, pyridine, and imidazole, shift the melting temp. of p38.alpha. by 16-17.degree. translating into Kd values of 50-100 pM. Finally, we describe several compds. that potentially inhibit TNF-.alpha. prodn. when dosed orally in mice.

RX(33) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(34) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(35) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(36) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(37) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(55) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(56) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(57) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(60) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(62) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(63) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(64) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(66) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(76) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(85) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(86) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(87) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
RX(89) OF 120 - REACTION DIAGRAM NOT AVAILABLE



RX(90) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(91) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(93) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(94) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(95) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(98) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(99) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(100) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(101) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(102) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(111) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(116) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(117) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(118) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(119) OF 120 - REACTION DIAGRAM NOT AVAILABLE  
 RX(120) OF 120 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 3 CASREACT COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 138:24709 CASREACT  
 TITLE: Preparation of pyrazole compds. and bis  
 pyrazole-1H-pyrazole intermediates as antiinflammatory  
 agents  
 INVENTOR(S): Kapadia, Suresh R.; Song, Jinhua J.; Yee, Nathan K.  
 PATENT ASSIGNEE(S): Boehringer Ingelheim Pharmaceuticals, Inc., USA  
 SOURCE: U.S., 37 pp., Cont.-in-part of U.S. 6,372,773.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<del>US 6492529</del>	B1	20021210	US 2002-67492	20020205
<del>US 6319921</del>	B1	20011120	US 2000-484638	20000118
<del>US 6333325</del>	B1	20011225	US 2001-871559	20010531
<del>US 6329415</del>	B1	20011211	US 2001-891579	20010626
<del>US 2002065265</del>	A1	20020530	US 2001-891820	20010626
<del>US 6506748</del>	B2	20030114		
<del>US 6372773</del>	B1	20020416	US 2001-920899	20010802
PRIORITY APPLN. INFO.:			US 2000-484638	20000118

US 2001-920899 20010802  
 US 1999-116400P 19990119  
 US 2001-891579 20010626

OTHER SOURCE(S): MARPAT 138:24709  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

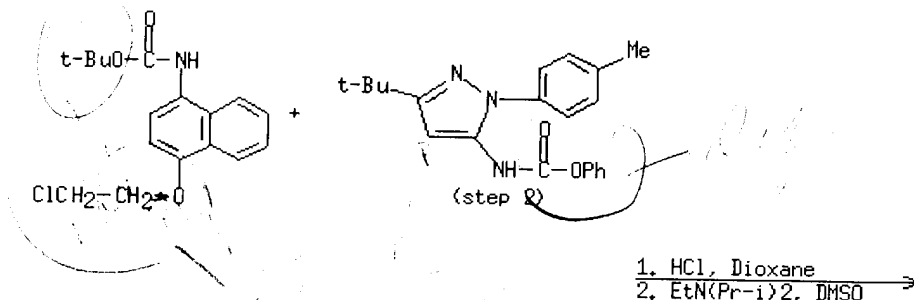
AB Pyrazole compds., e.g. I, as well as bis pyrazole-1H-pyrazole intermediate compds. e.g. II, were prepd. The compds. are useful in pharmaceutical compns. for treating diseases or pathol. conditions involving inflammation such as chronic inflammatory diseases. All prepd. compds. had IC<sub>50</sub> < 10 mM for inhibition of TNF.alpha. in lipopolysaccharide stimulated THP cells.

RX(74) OF 282 - REACTION DIAGRAM NOT AVAILABLE

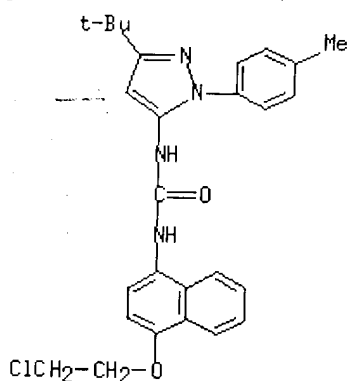
RX(79) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(82) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(84) OF 282 - 2 STEPS



RX(84) OF 282 - 2 STEPS



RX(93) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(95) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(96) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(97) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(98) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(105) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(134) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(136) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(141) OF 282 - REACTION DIAGRAM NOT AVAILABLE

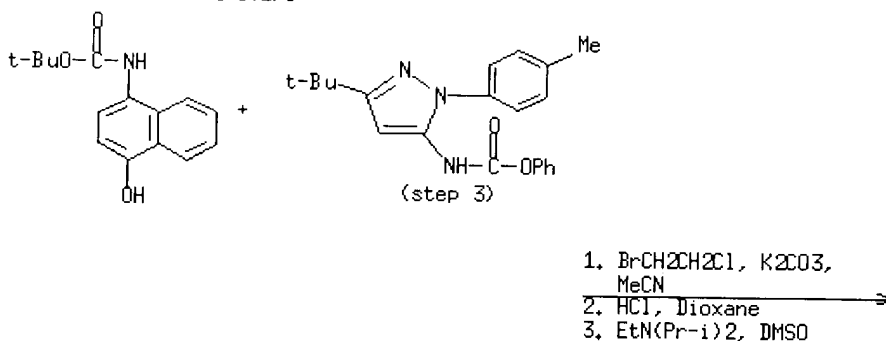
RX(143) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(145) OF 282 - REACTION DIAGRAM NOT AVAILABLE

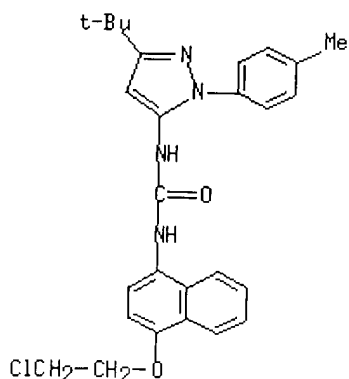
RX(147) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(148) OF 282 - REACTION DIAGRAM NOT AVAILABLE

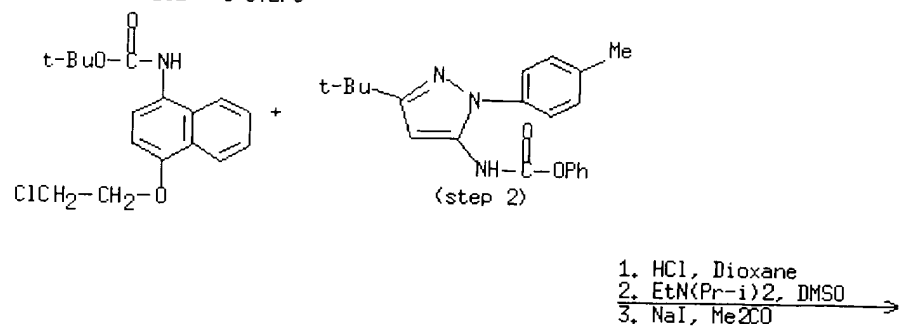
RX(149) OF 282 - 3 STEPS



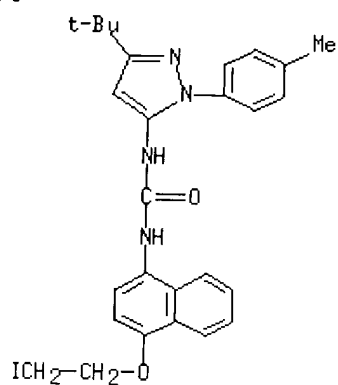
RX(149) OF 282 - 3 STEPS



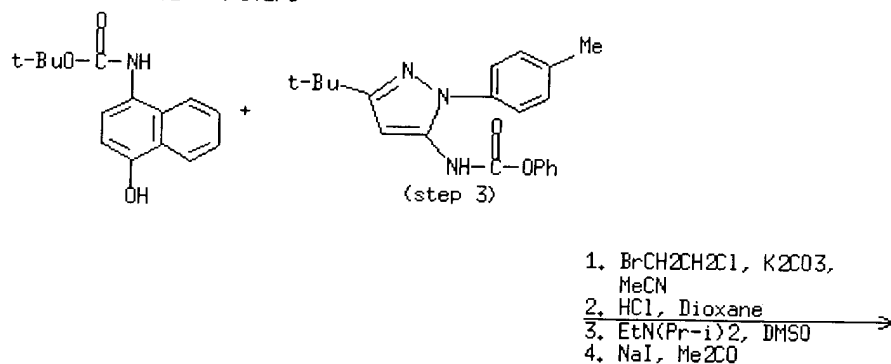
RX(151) OF 282 - 3 STEPS



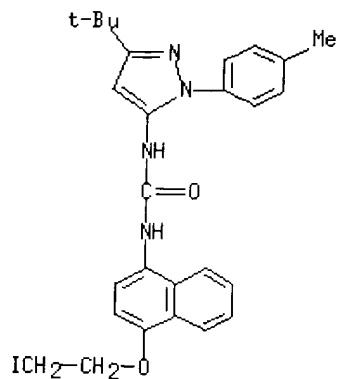
RX(151) OF 282 - 3 STEPS



RX(152) OF 282 - 4 STEPS



RX(152) OF 282 - 4 STEPS



RX(155) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(156) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(164) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(166) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(167) OF 2

82 - REACTION DIAGRAM NOT AVAILABLE

RX(168) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(169) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(170) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(175) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(176) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(177) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(178) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(179) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(180) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(181) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(192) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(194) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(230) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(231) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(234) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(235) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(238) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(239) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(243) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(244) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(245) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(246) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(247) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(251) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(252) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(253) OF 282 - REACTION DIAGRAM NOT AVAILABLE

RX(254) OF 282 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 3 CASREACT COPYRIGHT 2004 ACS on STN

Full Text	Citing References
--------------	----------------------

ACCESSION NUMBER:	137:119059 CASREACT
TITLE:	Pyrazole Urea-Based Inhibitors of p38 MAP Kinase: From Lead Compound to Clinical Candidate
AUTHOR(S):	Regan, John; Breitfelder, Steffen; Cirillo, Pier; Gilmore, Thomas; Graham, Anne G.; Hickey, Eugene; Klaus, Bernhard; Madwed, Jeffrey; Moriak, Monica; Moss, Neil; Pargellis, Chris; Pav, Sue; Proto, Alfred; Swinamer, Alan; Tong, Liang; Torcellini, Carol
CORPORATE SOURCE:	Research and Development Center, Department of Medicinal Chemistry, Boehringer Ingelheim Pharmaceuticals, Ridgefield, CT, 06877, USA
SOURCE:	Journal of Medicinal Chemistry (2002), 45(14), 2994-3008
PUBLISHER:	CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE:	American Chemical Society
LANGUAGE:	Journal
	English

AB We report on a series of N-pyrazole, N'-aryl ureas and their mode of binding to p38 mitogen activated protein kinase. Importantly, a key binding domain that is distinct from the ATP (ATP) binding site is exposed when the conserved activation loop, consisting in part of Asp168-Phe169-Gly170, adopts a conformation permitting lipophilic and hydrogen bonding interactions between this class of inhibitors and the protein. We describe the correlation of the structure-activity relationships and crystallog. structures of these inhibitors with p38. In addn., we incorporated another binding pharmacophore that forms a hydrogen bond at the ATP binding site. This modification affords significant improvements in binding, cellular, and in vivo potencies resulting in the selection of Compd. 45 (BIRB 796) as a clin. candidate for the treatment of inflammatory diseases.

RX(67) OF 99 - REACTION DIAGRAM NOT AVAILABLE

RX(86) OF 99 - REACTION DIAGRAM NOT AVAILABLE

RX(88) OF 99 - REACTION DIAGRAM NOT AVAILABLE

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>